



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,836	12/30/2003	Darrell S. McGinnis	INTEL5 (P17525)	2760
6980	7590	10/05/2006	EXAMINER	
TROUTMAN SANDERS LLP 600 PEACHTREE STREET, NE ATLANTA, GA 30308			YANCHÜS III, PAUL B	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/748,836	Applicant(s) MGINNIS, DARRELL S.	
	Examiner Paul B. Yanchus	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-18 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7 and 9 is/are rejected.
- 7) ☒ Claim(s) 4 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of claims 1-18 in the reply filed on 7/11/06 is acknowledged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 5-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobs, US Patent no. 5,909,563.

Regarding claim 1, Jacobs discloses a method comprising:

identifying a source clock frequency having a source clock period [CLKA, column 1, line 66 – column 2, line 6];

identifying a destination clock frequency having a destination clock period [CLKB, column 1, line 66 – column 2, line 6];

identifying a clock gearing ratio corresponding to the source and destination clock frequencies [A:B, column 2, lines 33-36];

receiving a source data stream at the source clock frequency, wherein the data stream is comprised of a plurality of source data units [Figure 3 and column 2, lines 53-62]; and

providing the source data stream as a destination data stream at the destination clock frequency [Figure 3 and column 2, lines 53-62].

Regarding claim 3, in the case that the source clock frequency is higher than the destination clock frequency it is inherent that a source data unit would have to be delayed for some amount of time before being outputted to the destination clock frequency domain.

Regarding claim 5, Jacobs discloses that the gearing ratio represents a first number of source clock periods that occur in substantially the same time period as a second number of destination clock periods [column 2, lines 33-36].

Regarding claim 6, Jacobs discloses providing data representative of the clock period in which a data unit is output [column 2, lines 33-36].

Regarding claim 7, Jacobs discloses outputting a first received source data unit [ITEM0] as a first destination data unit in the next available destination clock period [Figure 5].

Regarding claim 9, Jacobs discloses:

receiving a first source data unit [ITEM0] on a first source input and a second source data unit [ITEM1] on a second source input;

providing the first source data unit as a first destination data unit in the next available destination clock period on a first destination output [DCOUT in Figure 5];

providing the second source data unit as a second destination data unit in a successive destination clock period on the first destination output [DCOUT in Figure 5].

Art Unit: 2116

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobs, US Patent no. 5,909,563, in view of Kelly, US Patent Application Publication no. 2004/0193936.

Jacobs does not disclose selecting the gear ratio from a set of predetermined gear ratios. Kelly discloses a method of transferring data between two different clock domains in which the gear ratio is selected from a predetermined set of gear ratios [paragraphs 0013 and 0014]. It would have been obvious to one of ordinary skill in the art to combine the teachings of Jacobs with the teachings of Kelly by incorporating a selectable clock gear ratio in the Jacobs method in order to increase the flexibility of the method [Kelly, paragraph 0091].

Allowable Subject Matter

Claims 10-18 are allowed.

Claims 4 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Art Unit: 2116

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Santahuhta, US Patent no. 6,765,932, discloses synchronizing a data stream synchronized with a first clock signal to a second clock signal.

McDonnell et al., US Patent no. 6,128,749, discloses transferring data across two clock domains.

Nguyen, US Patent no. 5,905,766, discloses a method of transferring data from a first clock domain to a second clock domain.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul B. Yanchus whose telephone number is (571) 272-3678. The examiner can normally be reached on Mon-Thurs 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H. Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2116

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Paul Yanchus
September 28, 2006



LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100